

Abstract

The present invention relates to a gas sensor for measuring at least one gas concentration, in particular for a vehicle climate control system, having a substrate (2),

- 5 an IR radiation source (3) fastened on the substrate,
- an IR detector (4) fastened on the substrate,
- a measurement chamber (9) for receiving a gas having the gas concentration that is to be measured,
- 10 a shielding device (12) situated in the measurement chamber (9) between the IR radiation source (3) and the IR detector (4), for shielding a direct transmission of IR radiation (S) from the IR radiation source (3) to the IR detector (4) along an optical axis (A), and
- a reflective surface (6) that has a concavely curved first mirrored area (7) for receiving the IR radiation (S) emitted by the IR radiation source (3), and that has a concavely curved second mirrored area (8) that reflects the IR radiation (S) to the IR detector (4),
- 15 the measurement chamber (9) being formed between the reflective surface (6) and the substrate (2).

In this way, a simple and compact design is possible with a large measurement signal and good dynamic measurement characteristics.

Figure 6